

WHAT IS CLAIMED IS:

1           1.     A percutaneous gastrostomy device comprising:  
2                 a tubular portion defining a longitudinal axis;  
3                 an internal bolster having a radial wing secured to said tubular  
4                 portion, said internal bolster being flexible to permit elastic deformation  
5                 between a first orientation generally aligned with said longitudinal axis,  
6                 with the wing wrapped into a generally cylindrical configuration and a  
7                 second orientation with the wing unfurled and extending generally  
8                 transverse to said tubular portion longitudinal axis; and  
9                 a constraining member encasing said internal bolster to retain said  
10                internal bolster in said first orientation, with said wing wrapped into said  
11                generally cylindrical configuration, and to cover at least a major portion  
12                of said wrapped wing, wherein the removal of said casing permits the  
13                internal bolster to move from said first orientation to said second  
14                orientation.

1           2.     A percutaneous gastrostomy device comprising:  
2                 a tubular portion having a distal end;  
3                 an internal bolster secured to said distal end, said internal bolster  
4                 having a radial wing secured to said tubular portion, said internal bolster  
5                 being flexible to permit elastic deformation between a first orientation  
6                 generally aligned with said longitudinal axis, with the wing wrapped into

2  
3  
4  
5  
6 a generally cylindrical configuration and a second orientation with the  
7 wing unfurled and extending generally transverse to said tubular portion  
8 longitudinal axis, said wing including a pocket;

9  
10 a rod member, a projecting end and a handle, said rod member  
11 having a hollow tube along its longitudinal axis, said rod member being  
12 removably received within said tubular portion and said projecting end  
13 being removably received within said pocket of said internal bolster; and

14 a constraining member encasing said internal bolster to retain said  
15 internal bolster in said first orientation, with said wing wrapped into said  
16 generally cylindrical configuration and to cover at least a major portion  
17 of said wrapped wing, said constraining member having a ripcord  
18 attached thereto for tearing said constraining member and deploying  
19 said internal bolster, allowing said internal bolster to move from said first  
20 orientation to said second orientation.

1 3. The percutaneous gastrostomy device according to claim 1,  
2 wherein the constraining member encasing said internal bolster is in the  
3 form of a capsule.

1 4. The percutaneous gastrostomy device according to claim 2,  
2 wherein the constraining member encasing said internal bolster is in the  
3 form of a capsule having a axial hole therein.

1           5.     The percutaneous gastrostomy device as set forth in claim 4,  
2     wherein said ripcord is threaded through the hollow tube, through an  
3     opening in a pocket on the internal bolster , through a passage in the  
4     pocket, and out through a pocket exit hole, through the capsule, through  
5     a hole in the capsule, along the sidewall of the capsule and back  
6     through the pocket exit hole and back through the hollow tube, both  
7     ends of the ripcord extending through a handle of the rod member and  
8     both ends are fastened to a pull tab.

1           6.     The percutaneous gastrostomy device as set forth in claim 5,  
2     wherein said ripcord is threaded through said the hole located in said  
3     capsule and along a side of a wall of said capsule and positioned to tear  
4     said capsule wall.

1           7.     The percutaneous gastrostomy device as set forth in claim 5,  
2     wherein said ripcord is threaded twice through said hole located in said  
3     capsule and along each side wall of said capsule to tear said capsule  
4     walls.

1           8.     The percutaneous gastrostomy device as set forth in claim  
2     3, wherein said capsule is made of a material dissolvable in the patient's  
3     stomach.

1           9.     The percutaneous gastrostomy device as set forth in claim  
2     4, wherein said capsule is made of a material dissolvable in the patient's  
3     stomach.

1           10.    The percutaneous gastrostomy device according to claim 1,  
2     wherein the constraining member encasing said internal bolster is in the  
3     form of a wrapping.

1           11.    The percutaneous gastrostomy device according to claim 2,  
2     wherein the constraining member encasing said internal bolster is in the  
3     form of a wrapping.

1           12.    The percutaneous gastrostomy device as set forth in claim 10,  
2     wherein said wrapping is made of a material dissolvable in the patient's  
3     stomach.

1           13.    The percutaneous gastrostomy device as set forth in claim 11,  
2     wherein said wrapping is made of a material dissolvable in the patient's  
3     stomach.

1           14.    The percutaneous gastrostomy device as set forth in claim  
2     12, wherein said wrapping is made of a material dissolvable in the  
3     patient's stomach at a temperature range of between 50 -100 degree F.

1           15. The percutaneous gastrostomy device as set forth in claim  
2 13, wherein said wrapping is made of a material dissolvable in the  
3 patient's stomach at a temperature range of between 50 -100 degree F.

1           16. The percutaneous gastrostomy device as set forth in claim  
2 1, wherein a locking ring is positioned medially along the tubular portion,  
3 and sized to frictionally engage the tubular portion, and slidably mounted  
4 there along, and adjustable solely by frictional engagement with the  
5 tubular portion to accommodate to the size of the wearer, the locking  
6 ring providing a plurality of perforations and spaced ridges to enable air  
7 circulation between the locking ring and the body.

1           17. The percutaneous gastrostomy device as set forth in claim  
2 2, wherein a locking ring is positioned medially along the tubular portion,  
3 and sized to frictionally engage the tubular portion, and slidably mounted  
4 there along, and adjustable solely by frictional engagement with the  
5 tubular portion to accommodate to the size of the wearer, the locking  
6 ring providing a plurality of perforations and spaced ridges to enable air  
7 circulation between the locking ring and the body.

1           18. A method of assembling a percutaneous gastrostomy device  
2 comprising the steps of:

3 providing a tube having a longitudinal axis;

4 an internal bolster having a radial wing secured to said tube, said  
5 internal bolster being secured to said distal end, said internal bolster  
6 having a radial wing secured to said tubular portion, said internal bolster  
7 being flexible to permit elastic deformation between a first orientation  
8 generally aligned with said longitudinal axis, with the wing wrapped into  
9 a generally cylindrical configuration and a second orientation with the  
10 wing unfurled and extending generally transverse to said tubular portion  
11 longitudinal axis, said bolster having a radially extending pocket formed  
12 on an upper surface of said wing;

13 a rod member;

14 a capsule; and

15 providing an assembly fixture comprising a first assembly block  
16 having a longitudinal bore extending from one end of said first block and  
17 partially therethrough and communicating with a conical passage which  
18 converges inwardly from another end of said block;

19 inserting a distal end of said rod into said pocket to flex the pocket  
20 in axial alignment with said rod;

21 providing a second assembly block having a cavity therein  
22 adapted to receive said capsule, said second block being adapted to  
23 be received in said longitudinal bore;

24 inserting said capsule into said cavity;

25 inserting said second block into said longitudinal bore;

inserting said wing into said capsule by advancing rod into said conical passage to progressively fold the wing over the pocket and the rod to form a folded assembly; and further advancing the folded assembly into the capsule.

19. A method of installing a percutaneous gastrostomy device within a patient, said device including a tubular portion with a distal end, a folded internal bolster with a radial wing, a constraining member encapsulating said internal bolster, a rod member having a portion that is removable received with a pocket formed in said radial wing, a ripcord extending through said device and having a pull tab outside said device, said rod member and said constraining member cooperating to releasably retain said radial wing in an installation orientation; said method comprising the steps of:

positioning said device such that said distal end of said tubular portion is spaced inwardly of an internal surface of the patient;

releasing said folded internal bolster to a deployed orientation by employing said pull tab on said ripcord and tearing said constraining member; and

removing said rod member projecting end from said pocket on said radial wing to permit said internal bolster to obtain the second orientation with the wing unfurled and extending generally transverse to said tubular portion longitudinal axis.

1           20.    The method according to claim 19, wherein said rod member  
2    is disposed within said tubular portion, comprising the further step of  
3    removing said rod from said tubular portion.